

LISTING OF CLAIMS:

This listing of claims will replace all prior versions of claims in the application:

1. (Currently amended) A write element for perpendicular magnetic recording, comprising:
 - a write pole terminating at a plane defining an air bearing surface and having a track width measured parallel to the air bearing surface;
 - a return pole magnetically connected with said write pole in a back gap area and having a width greater than said track width;
 - said write pole being one or more layers of magnetic material having a tapered surface portion wherein said write pole becomes progressively thicker with increased distance from said air bearing surface;
 - a magnetic shield, magnetically connected with said return pole, and having a tapered surface portion substantially parallel with said tapered surface portion of said write pole and separated from said write pole by a non-magnetic write gap layer.
2. (Currently amended) A write element as in claim 1, wherein said tapered surface portion of said magnetic shield defines an angle of less than 90 degrees with respect to said air bearing surface.
3. (Currently amended) A write element as in claim 1, wherein said tapered surface portion of said magnetic shield defines an angle of between 60 and 90 degrees with respect to said air bearing ABS surface.
4. (Currently amended) A magnetic write element as in claim 1, wherein said shield is configured with a flared portion having a lateral width that increases with increasing distance from said air bearing surface ABS, and wherein said

flared portion of said shield initiates closer to said air bearing ABS surface than said tapered surface portion of said shield.

5. (Currently amended) A magnetic write element as in claim 1, wherein said write pole is configured ~~configures~~ with a flared portion having a lateral width that increases with increasing distance from said air bearing surface ABS, and wherein said tapered surface of said write pole initiates closer to said air bearing ABS surface than said flared portion of said write pole shield.
6. (Original) A magnetic write element as in claim 1 wherein said tapered shield further includes first and second laterally flared wing portions.
7. (Currently amended) A magnetic write element as in claim 6, wherein said laterally flared wing portions initiate at a point closer to the air bearing surface ABS than said tapered surface portion of said shield.
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Currently amended) A magnetic write element for perpendicular magnetic recording, comprising:
magnetic write pole having a track width and terminating at an air bearing
surface (ABS).

a magnetic return pole having a width substantially larger than said write pole,
said return pole being in magnetic connection with said write pole in a
back gap area;
a trailing shield, said shield having a tapered surface that is disposed adjacent to
said write pole and separated therefrom by a non-magnetic write gap;

A write element as in claim 8 wherein said tapered shield further includes first and
second laterally flared wing portions and wherein said laterally flared portions
initiate at a point closer to the ABS than said tapered surface portion.

13. (Withdrawn) A method of constructing a magnetic write element for use in perpendicular magnetic recording, comprising:
depositing a first layer of magnetic material;
depositing a mask layer recessed from an air bearing surface location;
performing an ion milling operation resulting in a gradually tapering surface
extending from said mask toward said air bearing surface location;
removing said mask
depositing a layer of non-magnetic write gap material; and
depositing a second layer of non-magnetic material.
14. (Withdrawn) A method as in claim 13, wherein said ion milling operation is performed at an angle of less than 80 degrees with respect to a surface of said deposited layers.
15. (Withdrawn) A method as in claim 13 further comprising after depositing said first layer of magnetic material, depositing a layer of Ta.
16. (Withdrawn) A method for constructing a magnetic head for use in perpendicular recording and having a tapered trailing shield, said method comprising:

forming a magnetic shaping layer having an end recessed from an air bearing surface (ABS) location;
 depositing a first layer of nonmagnetic material;
 performing a first chemical mechanical polishing process to generate a planar surface formed across an upper surface of said shaping layer and said non-magnetic material, said non magnetic material being disposed between said end of said shaping layer and said ABS location;
 depositing a first magnetic layer;
 depositing a second magnetic material layer, said second material layer being more readily removed by ion milling than said first magnetic material layer;
 depositing a mask having an end recessed from said ABS location
 performing an ion milling operation to form a tapered surface on said second magnetic material layer, said tapered surface sloping downward from said mask toward said ABS location;
 removing said mask;
 depositing a non-magnetic write gap layer;
 depositing a third layer of magnetic material over said non-magnetic write gap material;
 planarizing said third layer of magnetic material; and
 forming a return pole over above said third magnetic layer.

17. (Withdrawn) A method as in claim 16, further comprising, after depositing said second magnetic material layer, depositing a layer of Ta.
18. (Withdrawn) A method as in claim 16 further comprising, after depositing said non-magnetic write gap material layer, depositing a layer of diamond like carbon.

19. (Withdrawn) A method as in claim 16, wherein said ion milling is performed at an angle of greater than 15 degrees with respect to a normal to said first magnetic material layer.